In the Claims:

1. (Original) A wireless communication method comprising:

transmitting wireless communications from at least two radioterminals to a base station co-channel over a return link using a return link alphabet; and

transmitting wireless communications from the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

2. (Original) A method according to Claim 1 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to the at least two radioterminals non-co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

3. (Original) A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one antenna at the base station co-channel over a return link using a return link alphabet.

4. (Original) A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one multiple-polarized antenna at the base station co-channel over a return link using a return link alphabet.

5. (Original) A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas at the base station co-channel over a return link using a return link alphabet.

6. (Original) A method according to Claim 1 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station co-channel over a return link using a return link alphabet.

7. (Original) A method according to Claim 1 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one multiple-polarized antenna in at least two sectors of the base station co-channel over a return link using a return link alphabet.

8. (Original) A method according to Claim 1 wherein the base station is a first base station and wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one multiple-polarized antenna at the first base station and at least one multiple-polarized antenna at a second base station co-channel over a return link using a return link alphabet.

9. (Original) A method according to Claim 6 wherein transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station co-channel over a return link using a return link alphabet comprises:

selectively transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station co-channel over a return link using a return link alphabet if the at least two radioterminals are separated by more than a predetermined distance.

10. (Original) A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from a single linearly-polarized antenna at each of the at least two radioterminals to a base station co-channel over a return link using a return link alphabet.

11. (Original) A method according to Claim 1 further comprising:

decoding the wireless communications that are transmitted from the at least two radioterminals to the base station co-channel.

12. (Original) A wireless communication method comprising:

transmitting wireless communications from at least two radioterminals to a base station over a return link using a return link alphabet; and

transmitting wireless communications from the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

13. (Original) A method according to Claim 12 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to a base station co-channel over a return link using a return link alphabet.

14. (Original) A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to at least one antenna at each of the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

15. (Original) A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to at least one multiple-polarized antenna at each of the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

16. (Original) A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to a plurality of multiple-polarized antennas at each of the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

17. (Original) A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one antenna at the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

18. (Original) A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one linearly-polarized antenna at the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

19. (Original) A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least two linearly-polarized antennas at the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

20. (Original) A method according to Claim 12 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two linearly-polarized antennas at the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least two linearly-polarized antennas in a sector of the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

21. (Original) A method according to Claim 12 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two linearly-polarized antennas at the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one linearly-polarized antenna in at least two sectors of the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

22. (Original) A method according to Claim 12 wherein the base station is a first base station and wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one linearly-polarized antenna at the first base station and at least one linearly-polarized antenna at a second base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

23. (Original) A method according to Claim 12 further comprising:

decoding the wireless communications that are transmitted from the base station to the at least two radioterminals co-channel.

24. (Previously Presented) A wireless communication method comprising:

receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate the first radioterminal, over a forward link, co-channel;

relaying the wireless communications from the at least one second radioterminal to the first radioterminal over a short-range wireless link; and

using the wireless communications that are relayed to the first radioterminal from the at least one second radioterminal over the short-range wireless link to process the wireless communications that are received from the base station at the first radioterminal.

25. (Original) A wireless communication method according to Claim 24:

wherein receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate to the first radioterminal, over a forward link, co-channel comprises receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate to the first radioterminal, over a forward link, co-channel using a forward link alphabet; and

wherein the method further comprises transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

26. (Original) A method according to Claim 25 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to at least one antenna at the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

27. (Original) A method according to Claim 25 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to a plurality of multiple-polarized antennas in a sector of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

28. (Original) A method according to Claim 25 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to at least one multiple-polarized antenna in at least two sectors of the

base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

29. (Original) A method according to Claim 25 wherein the base station is a first base station and wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to at least one multiple-polarized antenna at the first base station and at least one multiple-polarized antenna at a second base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

30. (Original) A method according to Claim 27 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to a plurality of multiple-polarized antennas in a sector of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to a plurality of multiple-polarized antennas in a sector of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet if the first radioterminal and the at least one second radioterminal are separated by more than a predetermined distance.

31. (Original) A wireless communication method comprising:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a base station over a return link using a return link alphabet and from the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

32. (Original) A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one antenna at the base station over a

return link using a return link alphabet and from the at least one antenna at the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

33. (Original) A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one multiple-polarized antenna at the base station over a return link using a return link alphabet and from the at least one multiple-polarized antenna at the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

34. (Original) A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas at the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas at the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

35. (Original) A method according to Claim 31 wherein the base station includes a plurality of sectors and wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas in the sector of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

36. (Original) A method according to Claim 31 wherein the base station includes a plurality of sectors and wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one multiple-polarized antenna in at least two sectors of the base station over a return link using a return link alphabet and from the at least one multiple-polarized antenna in the at least two sectors of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

37. (Original) A method according to Claim 31 wherein the base station is a first base station and wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one multiple-polarized antenna at the first base station and at least one multiple-polarized antenna at a second base station over a return link using a return link alphabet and from the at least one multiple-polarized antenna at the first base station and the at least one multiple-polarized antenna at the second base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

38. (Original) A method according to Claim 35 wherein bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas in the sector of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet comprises:

selectively bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas in the sector of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet if the at least two radioterminals are separated by more than a predetermined distance.

39. (Original) A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from a single linearly-polarized antenna at each of the at least two radioterminals to at least one antenna at the base station over a return link using a return link alphabet and from the at least one antenna at the base station to the single linearly-polarized antenna at each of the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

40. (Original) A method according to Claim 31 further comprising:

decoding the wireless communications that are transmitted co-channel in time division duplex from the at least two radioterminals to the base station and from the base station to the at least two radioterminals.

41. (Original) A base station comprising:

a receiver that is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet; and

a transmitter that is configured to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

42. (Original) A base station according to Claim 41 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals non-co-channel over the forward link using a forward link alphabet that has more symbols than the return link alphabet.

43. (Original) A base station according to Claim 41 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at at least one antenna.

44. (Original) A base station according to Claim 41 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at at least one multiple-polarized antenna.

45. (Original) A base station according to Claim 41 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at a plurality of multiple-polarized antennas.

46. (Original) A base station according to Claim 41 wherein the base station includes a plurality of sectors and wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at a plurality of multiple-polarized antennas in a sector of the base station.

47. (Original) A base station according to Claim 41 wherein the base station includes a plurality of sectors and wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at at least one multiple-polarized antenna in at least two sectors.

48. (Original) A base station according to Claim 41 wherein the receiver is further configured to decode the wireless communications that are received from the at least two radioterminals co-channel.

49. (Original) A base station comprising:

a receiver that is configured to receive wireless communications from at least two radioterminals over a return link using a return link alphabet; and

a transmitter that is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

50. (Original) A base station according to Claim 49 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet.

51. (Original) A base station according to Claim 49 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one antenna.

52. (Original) A base station according to Claim 49 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one linearly-polarized antenna.

53. (Original) A base station according to Claim 49 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least two linearly-polarized antennas.

54. (Original) A base station according to Claim 49 wherein the base station includes a plurality of sectors and wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least two linearly-polarized antennas in a sector.

55. (Original) A base station according to Claim 49 wherein the base station includes a plurality of sectors and wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one linearly-polarized antenna in at least two sectors.

56. (Original) A base station comprising:

a time division duplex transceiver that is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over

a forward link using a forward link alphabet that has more symbols than the return link alphabet.

57. (Original) A base station according to Claim 56 wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one antenna.

58. (Original) A base station according to Claim 56 wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one multiple-polarized antenna.

59. (Original) A base station according to Claim 56 wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at a plurality of multiple-polarized antennas.

60. (Original) A base station according to Claim 56 wherein the base station includes a plurality of sectors and wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at a plurality of multiple-polarized antennas in a sector.

61. (Original) A base station according to Claim 56 wherein the base station includes a plurality of sectors and wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over

a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one multiple-polarized antenna in at least two sectors.

62. (Original) A base station according to Claim 60 wherein the transceiver is configured to selectively receive wireless communications co-channel from at least two radioterminals to the plurality of multiple-polarized antennas in the sector over a return link using a return link alphabet if the at least two radioterminals are separated by more than a predetermined distance.

63. (Original) A base station according to Claim 56 wherein the time division duplex transceiver is further configured to decode the wireless communications that are received co-channel from the at least two radioterminals.

64. (Previously Presented) A radioterminal comprising:

a transmitter that is configured to transmit wireless communications to a base station; and

a receiver that is configured to receive at least first and second signals, to process the at least first and second signals to derive first data that is associated with information transmitted by the base station to at least one device other than the radioterminal and to use the first data to derive second data that is associated with information transmitted by the base station to the radioterminal.

65. (Previously Presented) A radioterminal according to Claim 64 wherein the receiver is configured to receive the at least first and second signals using at least one antenna.

66. (Previously Presented) A radioterminal according to Claim 65 wherein the at least one antenna comprises at least one multiple-polarized antenna and/or a plurality of spaced-apart antennas.

67. (Previously Presented) A radioterminal according to Claim 66 wherein the at least one multiple polarized antenna comprises a plurality of multiple-polarized antennas.

68. (Currently Amended) A radioterminal according to Claim 64 wherein the receiver is further configured to decode at least one of the first and second [[wireless]] signals.

69. (Previously Presented) A radioterminal comprising:

a receiver that is configured to receive wireless communications from a base station over a forward link, to receive wireless communications from at least one second radioterminal over a short-range wireless link, and to use the wireless communications that are received from the at least one second radioterminal over the short-range wireless link to process the wireless communications that are received from the base station.

70. (Original) A radioterminal according to Claim 69:

wherein the receiver is configured to receive wireless communications from the base station over a forward link using a forward link alphabet; and

wherein the radioterminal further comprises a transmitter that is configured to transmit wireless communications to the base station using a return link alphabet that has fewer symbols than the forward link alphabet.

71-73. (Cancelled)

74. (Previously Presented) A method according to Claim 1, wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at a receiver.

75. (Previously Presented) A method according to Claim 12, wherein transmitting wireless communications from at least two radioterminals to the base station comprises:

transmitting wireless communications signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at a receiver.

76. (Previously Presented) A method according to Claim 24, wherein receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate to the first radioterminal, over a forward link, co-channel, comprises:

receiving wireless communications signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at each of the first and second radioterminals.

77. (Previously Presented) A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at a receiver.

78. (Previously Presented) A base station according to Claim 41, wherein the receiver is configured to receive wireless communication signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at the receiver.

79. (Previously Presented) A base station according to Claim 49, wherein the transmitter is configured to transmit wireless communication signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at a receiver.

80. (Previously Presented) A base station according to Claim 56, wherein the transceiver is configured to receive wireless communication signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at the transceiver.

81. (Previously Presented) A radioterminal according to Claim 64, wherein the receiver is configured to receive wireless communication signals that overlap in time and space, and that use the same carrier frequency, the same time slot if the signals are Time Division Multiple Access (TDMA) signals, and the same spreading code if the signals are Code Division Multiple Access (CDMA) signals, such that the wireless communication signals collide at the receiver.

82. (Previously Presented) A method according to Claim 11, wherein decoding comprises:

receiving at least first and second co-channel signals at respective at least first and second antennas;

processing the at least first and second co-channel signals to derive first data that is associated with a first one of the at least two radioterminals; and

using the first data to derive second data that is associated with a second one of the at least two radioterminals.

83. (Previously Presented) A method according to Claim 82, wherein processing comprises:

deriving at least first and second decision variables;

associating with each one of the at least first and second decision variables a measure of noise and/or interference;

selecting at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

making at least one first decision based upon the selected at least one decision variable; and

using the at least one first decision to make a second decision.

84. (Previously Presented) A method according to Claim 82, wherein processing comprises:

generating a delayed version of the at least first and second co-channel signals; and

jointly processing the at least first and second co-channel signals and the delayed version of the at least first and second co-channel signals.

85. (Previously Presented) A method according to Claim 84, wherein jointly processing comprises using a linear and/or non-linear processor.

86. (Previously Presented) A method according to Claim 85, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

87. (Previously Presented) A method according to Claim 86, wherein jointly processing comprises cancelling Co-Channel Interference (CCI).

88. (Previously Presented) A method according to Claim 23, wherein decoding comprises:

receiving at least first and second co-channel signals at respective at least first and second antennas;

processing the at least first and second co-channel signals to derive first data that is associated with a first one of the at least two radioterminals; and

using the first data to derive second data that is associated with a second one of the at least two radioterminals.

89. (Previously Presented) A method according to Claim 88, wherein processing comprises:

deriving at least first and second decision variables;

associating with each one of the at least first and second decision variables a measure of noise and/or interference;

selecting at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

making at least one first decision based upon the selected at least one decision variable; and

using the at least one first decision to make a second decision.

90. (Previously Presented) A method according to Claim 88, wherein processing comprises:

generating a delayed version of the at least first and second co-channel signals; and

jointly processing the at least first and second co-channel signals and the delayed version of the at least first and second co-channel signals.

91. (Previously Presented) A method according to Claim 90, wherein jointly processing comprises using a linear and/or non-linear processor.

92. (Previously Presented) A method according to Claim 91, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

93. (Previously Presented) A method according to Claim 92, wherein jointly processing comprises cancelling Co-Channel Interference (CCI).

94. (Previously Presented) A method according to Claim 24, wherein using the wireless communications comprises:

processing the wireless communications that are relayed to the first radioterminal from the at least one second radioterminal and the wireless communications that are received from the base station at the first radioterminal to derive first data that is associated with information that is transmitted by the base station to at least one device other than the first radioterminal; and

using the first data to derive second data that is associated with information that is transmitted by the base station to the first radioterminal.

95. (Previously Presented) A method according to Claim 94, wherein processing comprises:

jointly processing at least first and second signals;

deriving at least first and second decision variables based upon the jointly processing;

associating with each one of the at least first and second decision variables a measure of noise and/or interference;

selecting at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

making at least one first decision based upon the selected at least one decision variable; and

using the at least one first decision to make a second decision.

96. (Previously Presented) A method according to Claim 95, wherein jointly processing comprises:

generating a delayed version of the at least first and second signals; and

jointly processing the at least first and second signals and the delayed version of the at least first and second signals.

97. (Previously Presented) A method according to Claim 96, wherein jointly processing comprises using a linear and/or non-linear processor.

98. (Previously Presented) A method according to Claim 97, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

99. (Previously Presented) A method according to Claim 98, wherein jointly processing comprises cancelling Co-Channel Interference (CCI).

100. (Previously Presented) A method according to Claim 40, wherein decoding comprises:

receiving at least first and second co-channel signals at respective at least first and second antennas;

processing the at least first and second co-channel signals to derive first data that is associated with a first one of the at least two radioterminals; and

using the first data to derive second data that is associated with a second one of the at least two radioterminals.

101. (Previously Presented) A method according to Claim 100, wherein processing comprises:

deriving at least first and second decision variables;

associating with each one of the at least first and second decision variables a measure of noise and/or interference;

selecting at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

making at least one first decision based upon the selected at least one decision variable; and

using the at least one first decision to make a second decision.

102. (Previously Presented) A method according to Claim 100, wherein processing comprises:

generating a delayed version of the at least first and second co-channel signals; and

jointly processing the at least first and second co-channel signals and the delayed version of the at least first and second co-channel signals.

103. (Previously Presented) A method according to Claim 102, wherein jointly processing comprises using a linear and/or non-linear processor.

104. (Previously Presented) A method according to Claim 103, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

105. (Previously Presented) A method according to Claim 104, wherein jointly processing comprises cancelling Co-Channel Interference (CCI).

106. (Previously Presented) A base station according to Claim 48, wherein configured to decode comprises configured to:

receive at least first and second co-channel signals at respective at least first and second antennas;

process the at least first and second co-channel signals to derive first data that is associated with a first one of the at least two radioterminals; and

use the first data to derive second data that is associated with a second one of the at least two radioterminals.

107. (Previously Presented) A base station according to Claim 106, wherein configured to process comprises configured to:

derive at least first and second decision variables;

associate with each one of the at least first and second decision variables a measure of noise and/or interference;

select at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

make at least one first decision based upon the selected at least one decision variable; and

use the at least one first decision to make a second decision.

108. (Previously Presented) A base station according to Claim 106, wherein configured to process comprises configured to:

generate a delayed version of the at least first and second co-channel signals; and

jointly process the at least first and second co-channel signals and the delayed version of the at least first and second co-channel signals.

109. (Previously Presented) A base station according to Claim 108, wherein configured to jointly process comprises using a linear and/or non-linear processor.

110. (Previously Presented) A base station according to Claim 109, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

111. (Previously Presented) A base station according to Claim 110, wherein configured to jointly process comprises configured to cancel Co-Channel Interference (CCI).

112. (Previously Presented) A base station according to Claim 49, wherein the receiver comprises:

at least first and second antennas that are configured to receive respective at least first and second co-channel signals; and

a processor that is configured to process the at least first and second co-channel signals to derive first data that is associated with a first one of the at least two radioterminals and to use the first data to derive second data that is associated with a second one of the at least two radioterminals.

113. (Previously Presented) A base station according to Claim 112, wherein the processor is further configured to:

derive at least first and second decision variables;

associate with each one of the at least first and second decision variables a measure of noise and/or interference;

select at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

make at least one first decision based upon the selected at least one decision variable; and

use the at least one first decision to make a second decision.

114. (Previously Presented) A base station according to Claim 112, wherein the processor is further configured to:

generate a delayed version of the at least first and second co-channel signals; and

jointly process the at least first and second co-channel signals and the delayed version of the at least first and second co-channel signals.

115. (Previously Presented) A base station according to Claim 114, wherein configured to jointly process comprises using a linear and/or non-linear processor.

116. (Previously Presented) A base station according to Claim 115, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

117. (Previously Presented) A base station according to Claim 116, wherein configured to jointly process comprises configured to cancel Co-Channel Interference (CCI).

118. (Previously Presented) A base station according to Claim 63, wherein configured to decode comprises configured to:

receive at least first and second co-channel signals at respective at least first and second antennas;

process the at least first and second co-channel signals to derive first data that is associated with a first one of the at least two radioterminals; and

use the first data to derive second data that is associated with a second one of the at least two radioterminals.

119. (Previously Presented) A base station according to Claim 118, wherein configured to process comprises configured to:

derive at least first and second decision variables;

associate with each one of the at least first and second decision variables a measure of noise and/or interference;

select at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

make at least one first decision based upon the selected at least one decision variable; and

use the at least one first decision to make a second decision.

120. (Previously Presented) A base station according to Claim 118, wherein configured to process comprises configured to:

generate a delayed version of the at least first and second co-channel signals; and

jointly process the at least first and second co-channel signals and the delayed version of the at least first and second co-channel signals.

121. (Previously Presented) A base station according to Claim 120, wherein configured to jointly process comprises using a linear and/or non-linear processor.

122. (Previously Presented) A base station according to Claim 121, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

123. (Previously Presented) A base station according to Claim 122, wherein configured to jointly process comprises configured to cancel Co-Channel Interference (CCI).

124. (Previously Presented) A radioterminal according to Claim 68, wherein configured to decode comprises configured to:

derive at least first and second decision variables;

associate with each one of the at least first and second decision variables a measure of noise and/or interference;

select at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

make at least one first decision based upon the selected at least one decision variable; and

use the at least one first decision to make a second decision.

125. (Previously Presented) A radioterminal according to Claim 68, wherein configured to decode comprises configured to:

generate a delayed version of the at least first and second signals; and

jointly process the at least first and second signals and the delayed version of the at least first and second signals.

126. (Previously Presented) A radioterminal according to Claim 125, wherein configured to jointly process comprises using a linear and/or non-linear processor.

127. (Previously Presented) A radioterminal according to Claim 126, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

128. (Previously Presented) A radioterminal according to Claim 127, wherein configured to jointly process comprises configured to cancel Co-Channel Interference (CCI).

129. (Previously Presented) A radioterminal according to Claim 69, wherein the receiver is further configured to process the wireless communications that are received from the base station and the wireless communications that are received from the at least one

second radioterminal to derive first data that is not intended for the radioterminal and to use the first data to derive second data that is intended for the radioterminal.

130. (Previously Presented) A radioterminal according to Claim 129, wherein further configured to process comprises further configured to:

derive at least first and second decision variables;

associate with each one of the at least first and second decision variables a measure of noise and/or interference;

select at least one of the at least first and second decision variables responsive to at least one noise and/or interference content associated therewith;

make at least one first decision based upon the selected at least one decision variable; and

use the at least one first decision to make a second decision.

131. (Previously Presented) A radioterminal according to Claim 129, wherein further configured to process comprises further configured to:

receive at least first and second signals;

generate a delayed version of at least first and second signals; and

jointly process the at least first and second signals and the delayed version of the at least first and second signals.

132. (Previously Presented) A radioterminal according to Claim 131, wherein configured to jointly process comprises using a linear and/or non-linear processor.

133. (Previously Presented) A radioterminal according to Claim 132, wherein the linear and/or non-linear processor comprises a Least Mean Squared Error (LMSE), Kalman-based, least squares, recursive least squares, Zero Forcing (ZF) and/or Maximum Likelihood Sequence Estimation (MLSE) processor.

134. (Previously Presented) A radioterminal according to Claim 133, wherein configured to jointly process comprises configured to cancel Co-Channel Interference (CCI).